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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,202	10/27/2003	Marlow C. Jordahl		3856

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EXAMINER	
VERBITSKY, GAIL KAPLAN	
ART UNIT	**PAPER NUMBER**
2859	

DATE MAILED: 02/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/694,202	JORDAHL, MARLOW C.	
	Examiner	Art Unit	
	Gail Verbitsky	2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *11/21/2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2 Claims 10, 12-14 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchinson (U.S. 6393212) in view of Starner et al. (U.S. 6386272) [hereinafter Starner].

Hutchinson discloses a device/ system/ boiler (steam generator/ water heater) 10 having a heater 15 inside and a heating medium (water/ steam). The boiler has a temperature sensor 94 to control the heater temperature. When the temperature is beyond the predetermined level, a microprocessor shuts the system. Hutchinson states that the heater surface is susceptible to build-up of calcium (accumulation of scale) on its surface (col. 16, lines 13-14).

Although Hutchinson admits that the walls of the boiler are susceptible to build-up/ accumulation of scale, Hutchinson does not explicitly teach to detect the build-up/ accumulation (altered state).

Starner discloses in Fig. 4 a device in the field of applicant's endeavor comprising a temperature sensor (thermocouple) 52 within a tube and thermocouple's leads (signal means) also at least partially located within the tube and providing a temperature indicative signal to a control device (fouling calculation). This signal, along

with signals from other temperature sensors (30) is indicative of a temperature, and thus, any temperature change would be indicated including the temperature change indicative of an altered state (fouling/ build-up, accumulation of scale) to, inherently, alert or notify the operator of controlling device.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Hutchinson, so as to measure temperature profile of the tubes, as taught by Starner, so as to use the temperature sensor with the leads (signal means) within the tube and use the data not only for sensing the temperature within the tube, but also for determining a fouling (accumulation/ build-up/ deposit) in the tube, so as to allow the operator to take necessary actions to minimize the accumulation of scale, in order to protect the device from damage.

3. Claim 11 is finally rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchinson and Starner as applied to claims 10, 12-14 above, and further in view of Witt et al. (U.S. 6428627) [hereinafter Witt].

Hutchinson and Starner disclose the device as stated above in paragraph 2.

They do not teach that the device can be a dishwasher, as stated in claim 11.

Witt states that a heater tube to a dishwasher is susceptible to mineral build-up causing failure of a heating element.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Hutchinson and Starner, so as to measure temperature profile of the tube of the heater being a part of the

dishwasher, as taught by Witt, so as to determine if there is a temperature related accumulation (build-up/ deposit), because heaters of dishwashers are susceptible to build-up which can cause failure of the heater.

Response to Arguments

4. Applicant's arguments filed on November 21, 2005 have been fully considered but they are not persuasive.

Applicant states that Hutchinson uses a temperature sensor to prevent the heater from overheating, while the present invention is directed to determining an existence of an altered state. This argument is not persuasive because overheating of the heater is in a sense an existence of an altered state (high temperature state).

Also, applicant states that the present invention is directed to detection of gradual change in temperature, as opposed to the applied references. This argument is not persuasive because this limitation is not stated in the claims. It is the claims that define the claimed invention, and it is claims, not specification that are anticipated or unpatentable. Constant v. Advanced Micro-Devices, Inc., 7 USPQ2d 1064.

Applicant states that Hutchinson does not address the accumulation of scale. This argument is not persuasive because Hutchinson admits that the boilers are susceptible to accumulation of scale related to high temperature. Nevertheless, in claim 1, applicant has never claimed a limitation including "scale accumulation".

Applicant states that the instant invention is different from the prior art in that it is directed to continuously monitoring temperature and scale accumulation outside the tube. This argument is not persuasive because this limitation is not stated in the claims.

It is the claims that define the claimed invention, and it is claims, not specification that are anticipated or unpatentable. Constant v. Advanced Micro-Devices, Inc., 7 USPQ2d 1064.

Applicant states that Starner uses two temperature sensors and differential temperature signal to determine fouling/ scaling, as apposed to the instant invention (which does not require two temperature sensors). In response to Applicant's argument that the reference includes an additional structure/ feature (second temperature sensor) not required by Applicant's invention, it must be noted that the reference discloses the invention as claimed. The fact that it discloses additional structure (feature) not claimed by Applicant is irrelevant.

Applicant states that Hutchinson would not benefit from addition of differential temperature sensors of Starner. This argument is not persuasive because, in the rejection on the merits, the Examiner does not suggest to provide Hutchinson with the differential temperature sensors of Starner, the Examiner suggests to use Starner teaching that the temperature sensor can be used to determine fouling and, thus, altered state related to fouling.

Applicant states that in contrast to Starner, the claimed device is always functioning. This argument is not persuasive because this limitation is not stated in the claims. It is the claims that define the claimed invention, and it is claims, not specification that are anticipated or unpatentable. Constant v. Advanced Micro-Devices, Inc., 7 USPQ2d 1064.

Applicant states that the Examiner has no motivation to combine references. in response to applicant's argument that there is no suggestion to combine references, the examiner recognizes that there should be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. In re Nomiya, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articuated. the test for combining references is what the combination of disclosures taken as a whole would suggest to one od ordinary skill in the art. In re McLaughlin, 170 USPQ 209 (CCPA 1971. The references are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. In re Bozek, 163 USPQ 545 (CCPA) 1969.

Conclusion

5. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 and not mentioned above disclose related devices and methods.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gail Verbitsky whose telephone number is 571/ 272-2253. The examiner can normally be reached on 7:30 to 4:00 ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on 571/ 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GKV

Gail Verbitsky
Primary Patent Examiner, TC 2800

January 27, 2006